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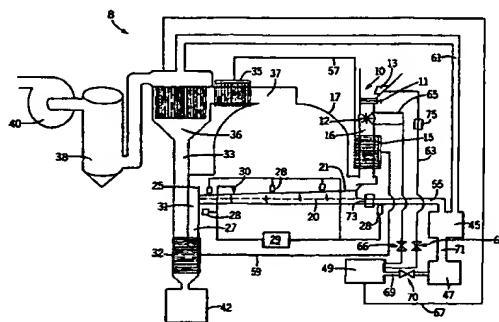
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(54) Title: **AMMONIA REMOVAL FROM FLY ASH**



Abstract: A method and apparatus for the application of heat to remove ammonia compounds from fly ash, thereby making the fly ash a marketable product is disclosed. The method includes the steps of providing an amount of fly ash wherein at least a portion of the amount of fly ash comprises particulates having ammonia compounds affixed to the particulates, and exposing the fly ash to flowing air having a temperature of at least 1,500 °F (815 °C) such that the fly ash is maintained in the flowing air until the fly ash reaches a temperature of at least 900 °F (482 °C). The apparatus (8, 9) includes a source of fly ash (10) comprising particulates having ammonia compounds affixed to at least some of the fly ash particulates, a heating chamber (17) including a treatment bed comprising a floor (20) having openings, a fly ash supply conduit (16) in communication with the heating chamber (17) and the source of fly ash (10) for transferring fly ash from the source of fly ash to the treatment bed of the heating chamber, a source of heated air (45), an air supply conduit (55) in communication with the source of heated air (45) and the heating chamber (17) for providing a flow of heated air to the treatment bed of the heating chamber for contacting the fly ash on the treatment bed with the flow of heated air, a heated air conduit (27) in communication with the heating chamber (17) for transferring the flow of heated air from the heating chamber, and an ash removal conduit (31) in communication with the heating chamber (17) for transferring heated fly ash from the heating chamber.

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